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**Choi et al.**

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(54) **METHOD AND APPARATUS FOR CONTROLLING TEMPERATURE FOR OPTICAL MODULATOR**

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(57) **ABSTRACT**

Disclosed are a temperature control method of an optical modulator and an apparatus therefore. The temperature control apparatus of an optical modulator according to an exemplary embodiment of the present disclosure is to provide a temperature control method of an optical modulator which performs a calibration mode to select a heater control voltage with a maximum optical modulation amplitude (OMA) while adjusting a heater control voltage which drives a heater of the optical modulator, stores a reference temperature measurement code based on a measured temperature value of the optical modulator while driving the heater at a selected heater control voltage, and performs a lock mode which controls a temperature of the optical modulator by changing the heater control voltage using the reference temperature measurement code after stopping the optical modulation amplitude detecting operation and an apparatus therefor.

(30) **Foreign Application Priority Data**

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(52) **U.S. Cl.**

CPC ..... **G02F 1/133382** (2013.01); **G02F 1/0123** (2013.01); **G02F 1/0147** (2013.01)

(58) **Field of Classification Search**

CPC .... G02F 1/0553; G02F 1/3515; G02F 1/0126; G02F 1/133385; G02F 1/0147; G02F 1/0123; G02F 1/133382

See application file for complete search history.

**11 Claims, 8 Drawing Sheets**

